

## **REMARKS**

Claims 1-4, 6-9, 11, 13-15, and 17-35 are pending in the application. Claims 1, 2, and 31 have been amended such that  $R^2$  and  $R^3$  are not amino. Claim 11 has been amended to correct a typographical error identified by the Examiner. Claims 29 and 34 have also been amended to correct a typographical error. The Applicants note that claims 7 and 8 have been identified as being allowable if rewritten in independent form. At this stage of the prosecution, the Applicants decline to amend these claims and continue to assert the patentability of the underlying base claims. No new matter has been added.

Claims 1-4, 6, 9, 11, 13-15, and 17-35 stand rejected under 35 U.S.C. § 103 as allegedly obvious over Freyne (U.S. Patent No. 5,541,325) in view of the combination of Srivastava (U.S. Patent No. 4,764,598), Caprathe (U.S. Patent No. 6,001,331), McDonald (U.S. Patent No. 5,441,963), and Olney (U.S. Patent No. 5,958,919). The Applicants respectfully disagree and request withdrawal of the rejection.

The present invention is directed to, *intra alia*, radiolabeled quinoline derivatives, as well as diagnostic methods and tools for detecting, marking, or identifying mGlu1 receptors *in vivo* and *in vitro*. Methods for screening test compounds for mGlu1 receptor binding are also described.

Freyne describes certain non-radiolabeled quinoline compounds as potent phosphodiesterase (PDE) inhibitors that are useful for alleviating and/or curing allergic and atopic diseases. Freyne at col. 21, lines 8-11. As conceded by the Office, Freyne does not describe radiolabeled compounds or methods for detecting the presence of a mGlu1 receptor. Indeed, mGlu1 receptors are not mentioned anywhere in Freyne. Moreover, Freyne requires that the substituents corresponding to  $R^2$  and  $R^3$  in the present claims must be amino. As currently amended, the present invention excludes such substitution; therefore, the compounds described in Freyne do not encompass any compounds of the instant claims.

Additionally, while the compounds described in Freyne are taught as useful for alleviating and/or curing allergic and atopic diseases, the compounds of the present invention are useful in the study and treatment of psychiatric and neurological diseases. None of the cited references suggest that the compounds of Freyne can be used to detect, mark, or identify mGlu1 receptors; indeed, none of the cited references suggest that the compounds of Freyne

can be useful in the study or treatment of *any* psychiatric or neurological disease mechanism. Thus, there is nothing in the cited references that would lead one of skill in the art to modify the compounds of Freyne in accordance with Applicants' claims

Srivastava, while referencing quinolines generally, provides no examples of such compounds; the only exemplified compounds are pyridiniums. In addition, Srivastava fails to teach that the compounds described therein bind to *any* specific receptors.

The compounds described in McDonald are structurally dissimilar to the compounds of the present invention, and furthermore, those compounds are described as preferentially binding to the strychnine-insensitive glycine binding site on the NMDA receptor complex. McDonald at col. 3, lines 20-26. The mGlu1 receptors described in the present invention are distinct from the NMDA receptor complex described in McDonald.

One of skill in the art would have no reason to modify and radiolabel the compounds of Freyne to produce the radiolabeled compounds of the present invention. And as none of the cited references teach or suggest that the compounds of Freyne would have any affinity for mGlu1 receptors, one of skill in the art would find no motivation in the cited art to modify the compounds of Freyne for detecting, marking, or identifying mGlu1 receptors *in vivo* or *in vitro*. The Applicants assert that a *prima facie* case of obviousness has not been established and, therefore, respectfully request withdrawal of the rejection.

The Applicants assert that the foregoing represents a *bona fide* response to the pending Office Action and that the claims are in condition for allowance. An early and favorable Notice of Allowance is thereby requested.

Date: January 16, 2008

/Stephanie A. Barbosa/

Stephanie A. Barbosa

Registration No. 51,430

Woodcock Washburn LLP  
Cira Centre  
2929 Arch Street, 12th Floor  
Philadelphia, PA 19104-2891  
Telephone: (215) 568-3100  
Facsimile: (215) 568-3439